

## REMARKS

Favorable reconsideration is respectfully requested in view of the foregoing amendment and following remarks.

Upon entry of the foregoing amendment, claims 1-22 are cancelled and claims 23-42 are pending. Claims 23-42 correspond to former claims 1-3, 9-10, 4-6, 11-12, 7, 13, 8, 14-15, and 17-21, respectively. Independent claims 23, 30 and 38 have been revised to more particularly point out and distinctly claim the invention over the prior art.

More specifically, claim 23 has been revised to require that the immunoassay is a sandwich immunoassay. See former claims 16 and 22.

The mammalian  $\gamma$ -BNP derivatives to which the sandwich immunoassay is designed to specifically detect have been defined as having a carboxy terminus portion including  $\alpha$ -BNP and as having an amino terminus portion which does not include  $\alpha$ -BNP. See for example page 9, line 14 to page 11, line 22 of the specification. See also Appendix I attached to the Applicant's response filed November 5, 2001.

The sandwich immunoassay is defined as comprising:

- (a) an immunoassay solution,
- (b) a first antibody in said immunoassay solution, and
- (c) a second antibody in said immunoassay solution.

See page 9, line 14 to page 11, line 22 of the specification.

The first antibody is furthermore defined as being specifically reacted with the carboxy terminus portion (i.e.  $\alpha$ -BNP) of a mammalian  $\gamma$ -BNP derivative.

The second antibody is furthermore defined as being specifically reacted with the amino terminus portion of said mammalian  $\gamma$ -BNP derivative and which is not reacted with the carboxy terminus portion of said mammalian  $\gamma$ -BNP derivative.

Claim 30 requires the kit comprise the first antibody as a first component, and the second antibody as a second component. See page 10, line 1 to page 11, line 22 of the specification.

Claim 38 is drafted along the lines of claims 23.

The wording of the new claims is deemed to patentably define over the teachings of Hunt et al. relied upon by the Examiner in previous Office Actions.

Hunt et al. was held to anticipate the former claim 1, on the basis that the reference teaches the two antibodies of claim 1. However, Hunt et al. only teaches two separate competitive immunoassays. First, Hunt et al. conducted a competitive immunoassay containing a single antibody against the N-terminal fragment of ProBNP. This immunoassay was followed by a second, separate and subsequent competitive immunoassay containing a single antibody against BNP-32. At no time did Hunt et al. ever make or use a single sandwich immunoassay according to claim 23, wherein two antibodies directed to different ends of a mammalian  $\gamma$ -BNP derivative are present together in an immunoassay solution. See for example the paragraph bridging pages 1177-1178 of Hunt.

Accordingly, Hunt et al. does not anticipate claim 23.

Nor does Hunt et al. anticipate claims 30 or 38. Hunt et al. fail to teach a kit, according to claim 30, having the first and second antibodies as defined therein as two components. Regarding claim 38, Hunt et al. clearly fails to disclose a method for assaying mammalian  $\gamma$ -BNP derivatives, by contacting a sample solution with the claimed first and second antibodies, and measuring the mammalian  $\gamma$ -BNP derivatives to which the first and second antibodies are bound.

Nor does Hunt suggest or render obvious the new claims. There is no teaching or suggestion in Hunt which would motivate one skilled in the art to detect a mammalian  $\gamma$ -BNP derivative, using a sandwich immunoassay, which comprises a first antibody which is specifically reacted with the carboxy terminus portion of mammalian  $\gamma$ -BNP (i.e.  $\alpha$ -BNP), and a second antibody which is specifically reacted with the amino terminus portion of mammalian  $\gamma$ -BNP and not  $\alpha$ -BNP.

Hunt merely confirms that serum contains the N-terminal fragment ProBNP(1-76) as well as the active fragment BNP-32 (77-108). There is no teaching or suggestion in Hunt to motivate someone skilled in the art to conduct a sandwich immunoassay for the entire gamma ProBNP or derivative thereof including the BNP-32 active fragment.

Hunt fails to disclose or suggest any sandwich immunoassay kit according to claim 30, containing a first antibody and a second antibody as separate components. The term "kit" has a well accepted meaning in the art, meaning a container having as its contents one or more separate individual components. Hunt fails to disclose or suggest any kit.

Moreover, Hunt fails to suggest the method of claim 38.

Favorable reconsideration and allowance is respectfully solicited.

Respectfully submitted,

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